

AL'BOTA, L.A.; CHIKRYZOVA, Ye.G.

Oscillographic polarography characteristics of copper. Izv. AN Mold.
SSR no.10:55-60 '62. (MIRA 17:12)

4

RUDI, V.P.; AL'BOTA, N.K.; SAFRONOVA, I.I.

Viscosity and electric conductivity of solutions of carboxymethyl-
cellulose salts. Ukr. khim. zhur. 26 no.6:716-718 '60.
(MIRA 14:1)

1. Chernovitskiy gosudarstvennyy universitet, kafedra fizicheskoy
khimii.

(Cellulose)

RUDI, V.P.; AL'BOTA, N.K.

Effect of surface-active agents on the properties of drilling muds.
Koll.zhur. 26 no.2:241-244 Mr-Ap '64. (MIRA 17:4)

1. Chernovitskiy universitet.

L 41322-66 EWT(m)/EWP(t)/ETI IJP(c) JD/VW/JG

ACC NR: AP6019608 (A, N) SOURCE CODE: UR/0048/66/030/002/0217/0219

AUTHOR: Bilibin, L.P.; Aurov, G.; Albov, A.

60
B

ORG: none

TITLE: On the decay scheme of Am^{240} /Report, Fifteenth Annual Conference on Nuclear Spectroscopy and Nuclear Structure, held at Minsk, 25 Jan. to 2 Feb. 1965/

SOURCE: AN SSSR, Izvestiya, Seriya fizicheskaya. v. 30, no. 2, 1966, 217-219

TOPIC TAGS: nuclear spectroscopy, gamma spectrum, electron capture, radioactive decay scheme, americium,

ABSTRACT: ¹⁹The authors have investigated the γ rays accompanying the K-capture decay of Am^{240} to Pu^{240} . The Am^{240} was obtained from the (d,n) reaction on Pu^{239} , and was deposited on a teflon substrate. The γ ray spectrum was recorded with scintillation spectrometers employing 4 x 4 and 8 x 5 cm NaI (Tl) crystals. The spectrometer employing the 4 x 4 cm crystal was calibrated with Am^{241} , Ce^{144} , Au^{198} , and Co^{60} sources, the absolute activities of which had been measured with a 4π β counter or an ionization chamber. Gamma rays ascribable to Am^{240} were observed at 100, 940, 1040, and 1400 keV. The 100 keV line is attributed to K x radiation. From the intensities of the different γ rays it is concluded that of the electron capture decays of Am^{240} , some 20% go to the 940 keV level in Pu^{240} , 80% go to the 1040 keV level, and 0.1% go to the 1400 keV level. The 1400 keV gamma line was found to be consid-

Card 1/2

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ably less intense than reported by R.Glass (NSA, 9, No.24B (1955)) and by R.Glass, R.Carr, and W. Gibson (J. Inorg. Nucl. Chem., 13, 3/4, 181 (1960)). The intensities of the other lines are in satisfactory agreement with the findings of Glass, Carr, and Gibson. Orig. art. has: 2 figures and 1 table.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 004 OTH REF: 004

Card

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AL'BOV, I.N., inzh.

Machine tool for bending pipes with induction heating. Strci.
truboprov. 7 no.4:22-24 Ap '62. (MIRA 15:5)
(Pipe bending) (Induction heating)

AL'BOV, I.N.

Pipe bending with induction heating. Kuz.-shtam.proizv. 5
no.4:44-46 Ap '63. (MIRA 16:4)
(Pipe bending) (Induction heating)

AL'BOV, M.N., doktor geologo-mineralogicheskikh nauk; GLASKOVSKIY, V.A., retsenzent.

[Sampling ore deposits in prospecting and mining operations] Oprobovanie
rudnykh mestorozhdenii pri razvedke i eksploatatsii. Izd. 2., perer. i dop.
Sverdlovsk, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoy metallur-
gii, 1952. 214 p. (MLRA 6:5)

(Ores--Sampling and estimation)

1. AL'BOV, M. N.

2. USSR (600)

4. Ural Mountains - Platinum

7. Discovery of platinum ore in the Urals. Biul, MOIP.Otd.geol. 27 no 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, JANUARY 1953. Unclassified.

~~AL'BOV, M.N.~~

AL'BOV, M.N.

Photometric determination of the composition of native gold. M. N. Al'bov. *Zapiski Vsesoyuz. Mineralog. Obshchestva* (Mem. soc. russe mineral.) 82, 287-91(1953); cf. Fisher, C.A. 40, 1916'.—A table shows a function of the compn. of pure Au-Ag alloys from the photometric data of the reflection coeffs. (in %), measured in red light (R_c), and in blue (R_b). The ratio R_c/R_b , which varies between 1.08 and 2.64 with increasing Au content, and especially R_b which varies between 87.85 and 36.47% from pure Ag to pure Au, are sufficiently sensitive for the development of a method for the analysis of native Au alloys. Another curve shows for Au, Pt, Ag, and Au-Ag alloys the dispersion of the coeffs. R for $\lambda = 400$ to $580 \text{ m}\mu$. For the ternary system Au-Ag-Cu, a visually derived diagram is given which shows characteristic changes of the colors of the alloys as a function of chem. compn. As a practical example a statistical diagram is given for 502 gold bullions (ingots) from the Beresovsk deposits. It is a general fact that placer gold, and the metal found in the ores of oxidation zones is higher in Au than native primary gold. For the accurate measurement of the R -values, the spectrophotometer eyepiece of Berek (E. Leitz-Wetzlar) has been used. Ostrovskii (*Kolyma* (Magadan) 1946, No. 0, 10-21) has taken for such detns. galenite (PbS) crystals on fresh cleavage faces as a standard for the R values. An eyepiece with a Se photocell and mirror-galvanometer reading was generally not sensitive enough, in comparison with visual measurements; also the illuminated diam. of the sample can be much smaller for visual detns. in blue light, than for the Se-photocell method. W. Eitel

AL'BOV, M.N.

Method of determining the amount of free silicon dioxide in
mines. Ugol' 29 no.3:37-38 Mr '54. (MLRA 7:3)

1. Ural'skiy Gosudarstvennyy universitet im. A.M.Gor'kogo.
(Mine dusts)

AL' BOV, M.N

7. Formation of stolzite in the oxidation zone. M. N. Al'bov. *Zapiski Vostochnykh Mineralogicheskikh Obshchestv* (Mem. Soc. russ. mineral.) 83, 148-50 (1954). —The stolzite is closely assoc. with muscovite; evidently the mineral is a late crystn. in the deposit, formed by the oxidation of PbS and scheelite in the weathering zone. Wulfenite in the same occurrence, however, is fresh, and not changed to stolzite; wolframite is assoc. with the primary ore (scheelite). The chem. analyses of the samples show the stolzite composed of 97% $PbWO_4$ and 3% $Ca(W,Mo)O_4$ (powellite). The spectral analysis shows important contributions by Li, K, Mg, Al, P, Zn; medium elements are Si, Mn, Sr, Mo, traces of Be, Fe, Ag, Sn, Pb, Au, Bi. λ s 2.31-2.35; the x-ray diagram corresponds to that of $PbWO_4$. The occurrence is an eluvial weathering deposit of a high- α rich W-Sn ore; rounded aggregates are found in it, of 5 to 20 cm. diam., d. 429. The microscopic exam. shows abundant muscovite and an undefined, amorphous matrix of opaque ore material.

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AL'BOV, M. N.

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Oprobowanie zloz rud; przy ich poszukiwaniu, rozpoznawaniu i eksploatacji
(Testing ore veins; with research, discernment and exploitation) Warszawa,
Wydawnictwa Geologiczne, 1955.

243 p. illus., daigrs., tables (Biblioteka zawodowa geologa. Metody
pracy, 15)

"Literatura": p. 239-240

Translated from the Russian: Oprobovaniye Rudnykh mestorozhdeniy.

AL'BOV, Mikhail Nikolayevich, doktor geologo-mineralogicheskikh nauk, professor; BYBOCHKIN, Aleksey Mironovich, kandidat geologo-mineralogicheskikh nauk; LOGINOVSKIY, Vasilii Mikhaylovich, gornyy inzhener; KORDOVER, G.A., redaktor; LUCHKO, Yu.V., redaktor izdatel'stva; ZEF, Ye.M., tekhnicheskiiy redaktor

[Mining geology] Rudnichnaya geologiya. Pod obshchey red. V.M. Loginovskogo. Sverdlovsk, Gos. nauchno-tekhn. izd-vo lit-ry po chernoy i tsvetnoy metallurgii, Sverdlovskoe otd-nie, 1956. 448 p. (MLRA 10:2)

1. Zaveduyushchiy kafedroy poiskov i razvedki mestorozhdeniy poleznykh iskopayemykh Ural'skogo gosudarstvennogo universiteta imeni A.M.Gor'kogo (for Al'bov). 2. Starshiy geolog Glavnogo geologicheskogo upravleniya Ministerstva tsvetnoy metallurgii SSSR (for Bybochkin). 3. Glavnyy geolog tresta "Uralruda" Ministerstva chernoy metallurgii (for Loginovskiy)
(Geology)

AL'BOV, M.N.

Method of exploring and testing gossans of pyrite deposits in the
Urals. Razved.i okh.nedr 22 no.1:22-28 Ja '56. (MLRA 9:5)
(Ural Mountains--Pyrites)

0114-10 N

Possibility of the occurrence of platinum in quartz veins.

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AL'BOV, M.N.

Arkadii Aleksandrovich Ivanov; obituary. Zap. Vses. min. ob-va
86 no.1:151-154 '57. (MLRA 10:4)
(Ivanov, Arkadii Aleksandrovich, 1902-1956)

14(5)

SOV/132-59-6-2/16

AUTHORS: Al'bov, M.N. and Chelyshev, V.L.

TITLE: A Mechanical Groove Core-Sampling in Prospecting Drilling

PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 6, pp 5 - 12 (USSR)

ABSTRACT: After describing methods of core-sampling in use in Canada and the U.S., the authors propose their own method, which, according to them, simplifies the operation. The method consists in placing the obtained core-sample on a specially built bench, and making one or two deep grooves with a rotating circular cutter. The whole operation, as well as the specially built bench, is described in detail. The method was tried out during the prospecting drilling of parties and expeditions organized by the Ural and South Ural geological directorates. In this connection, the names of V.A. Glazkovskiy, A.A. Ivanov and K.I. Satpayev are mentioned [Ref 3 and 4].

Card 1/2

SOV/132-59-6-2/16

A Mechanical Groove Core-Sampling in Prospecting Drilling

The comparison of results obtained by both new and old methods (table 2 and 3) showed the reliability of the new method. Moreover, considerable economies in time, money and labor are realized with its use. In a footnote, the editors consider that this method requires further testing under industrial conditions. It can be applied only when the ore-components are distributed uniformly. The expediency of the method must be checked experimentally for each given deposit. There are 4 tables, 2 diagrams, 1 photograph and 9 references, 8 of which are Soviet and 1 Canadian.

ASSOCIATION: Sverdlovskiy gornyy institut im. Vakhrusheva (Sverdlovsk Mining Institute imeni Vakhrushev)

Card 2/2

AL'BOV, M.N.

Significance of gold migration in the oxidized zone of ore deposits.
Trudy Gor.-geol. inst. UFAN SSSR no.40:137-141 '59. (MIRA 13:11)
(Gold ores)

AL'BOV, Mikhail Nikolayevich; SMIRNOV, V.I., nauchnyy red.; PANOVA,
~~red. izd-va~~; IVANOVA, A.G., tekhn.red.

[Secondary zoning in gold deposits of the Urals] Vtorichnaya
zonal'nost' zolotorudnykh mestorozhdenii Urals. Moskva, Gos.
nauchno-tekhn.izd-vo lit-ry po geol. i okhrane neдр, 1960.
214 p. (MIRA 14:4)

1. Chlen-korrespondent AN SSSR (for Smirnov).
(Ural Mountain region--Gold ores)

AL'BOV, M.N.

"Behavior of gold in the zone of oxidation in gold sulfide deposits"
by V.M. Kreiter and others. Reviewed by M.N. Al'bov. Geol. rud.
mestorczh. no.1:120-121 Ja-F '60. (MIRA 13:7)
(Gold) (Kreiter, V.M.)

AL'BCV, M.N.; ZHELOBOV, P.P.

Method of prospecting for hidden pyrite deposits in the Urals.
Razved. i okh. nedr 26 no.2:43-44 Feb. '60. (MIRA 14:6)

1. Sverdlovskiy gornyy institut im. Vakhrusheva.
(Ural Mountains--Pyrites)

AL'BOV, M.N.

Review of A.A.Iakzhin's book "Prospecting for mineral deposits."
Razved. i okh. nedr 27 no.1:63-64 Ja '61. (MIRA 17:2)

1. Sverdlovskiy gornyy institut.

AL'BOV, M.N., prof., red.; FEDOTOVA, A.I., red. izd-va; BYKOVA, V.V.,
tekh. red.

[Methods of sampling ore deposits in prospecting and exploitation; materials] Voprosy metodiki oprobovania rudnykh mestorozhdenii pri razvedke i ekspluatatsii; materialy. Pod red. M.N.Al'bova. Moskva, Gosgeoltekhizdat, 1962. 221 p.
(MIRA 15:9)

1. Mezhvuzovskoye soveshchaniye v Sverdlovskom gornom institute im. V.V.Vakhrusheva, Sverdlovsk, 1960.
(Ores--Sampling and estimation)

ALBOV, M.N., prof. dr.

New methods of sampling the ores of nonferrous metals.
Rev min 13 no.3:97-102 Mr '62.

1. Institutul de mine din Sverdlovsk, U. R. S. S.

IVANOV, Nikolay Vasil'yevich; AL'BOV, M.N., red.; PANOVA, A.I.,
red. izd-va; IVANOVA, A.G., tekhn. red.

[New trends in sampling ore deposits] Novoe napravlenie v
oprobovanii rudnykh mestorozhdenii. Moskva, Gosgeoltekhizdat,
1963. 178 p. (MIRA 16:6)
(Ores--Sampling and estimation)

AL'BOV, M.N.; CHELYSHEV, V.L.; FEDOROVA, L.N., red.izd-va;
IYERUSALIMSKAYA, Ye., tekhn. red.

[Mechanical trenching in testing cores of exploratory
boreholes] Borozdovoe mekhanicheskoe oprobovanie kernov
razvedochnykh skvazhin. Moskva, Gosgeoltekhizdat, 1963.
66 p. (MIRA 16:12)
(Ores—Sampling and estimation)

AL'BOV, M.N., prof.; PANOV, Yu.K., inzh.

Correlated dependence of the components in an iron ore deposit. Izv. vys. ucheb. zav.; ger. zhur. 6 no.7:11-18 '63. (MIRA 16:9)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva. Rekomendovana kafedroy peishev i razvedki mesterozhdeniy poleznykh iskopayemykh Sverdlovskogo gornogo instituta.
(Iron ores)

AL BOV, Mikhail Nikolayevich, prof.

[Sampling commercial mineral deposits] Oprobovanie mesto-
rozhdenni poleznykh iskopaemykh. Moskva, Nedra, 1965.
238 p. (MIRA 18:9)

ARISTOV, V.V.; KRENDELEV, F.P.; KREYTER, D.S.; RUSHOV, I.A.;
BABUSHKIN, V.A.; TROFINOV, N.H., prepod. KREYTER, V.M.,
prof., retsenzent; AL'BOV, M.N., prof., retsenzent;
KOZERENKO, V.N., prof., retsenzent; KRAYNO, S.V., st.
prepod., retsenzent; BELYAKOVA, Ye.V., red.

[Manual for laboratory work in the course on prospecting
and exploration for mineral deposits] Rukovodstvo dlia
prakticheskikh zaniatii po kursu poiskov i razvedki mesto-
rozhdanii poleznykh iskopaemykh. Moskva, Vysshaya shkola,
1965. 253 p. (MIRA 18:9)

AL'BOV, N. A.

11A

PROCESSING AND REPRODUCTION DATA

The effect of phosphorus compounds on the isolated heart muscle of warm-blooded animals. N. A. Al'bov. *J. Physiol. (U. S. S. R.)* 25, 36-40 (in English 40) (1938).—The perfusion of Ca glycerophosphate or lecithin solus. through the isolated heart of cats or rabbits results in a strong stimulatory effect on the heart muscle. The effect seems to be due to the stimulatory action of the P⁺ compds. upon the intracardial nervous ganglia and to alterations in the permeability of cell membranes which cause an increase in lipide passage. S. A. Kozlov.

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

BRON: 51A51B1A

SEARCH: 51A 51B 1A

REF: 51A 51B 1A

NO. 51A 51B 1A

REF: 51A 51B 1A

AL'BOV, N.A.
11H

Intensification of insulin action by zinc iontophoresis.
N. A. Al'bov (4th Med. Inst., Moscow). *Byull. Ekspil. Biol. Med.* 12: 288-301 (1941).—Zn iontophoresis at the site of administration of insulin was investigated in diabetic hospital patients. This procedure is said (no details given) to improve the action of insulin and to give a more even and somewhat more gradual drop of blood sugar than insulin alone. Zn iontophoresis alone does not influence blood sugar level. Typical blood sugar curves are given.
G. M. Kosolovoff

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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AL'BOV, N. A.

1A 6/49T60

USSR/Medicine - Therapeutics
Medicine - Hospitals

May/June 48

"The Duties of Chief Therapists in Connection
With the Union of Hospitals and Polyclinics," Prof
N. A. Al'bov, Chief Therapist, Ministry of Pub
Health USSR, 5 pp

"Sov Zdravookhran" No 3

Chief therapist is not only most experienced
clinician but responsible leader and organizer of
therapeutic work in oblast, rayon, or town. His
duty is to ensure smooth cooperation between
hospitals and clinics. Stresses importance of

6/49T60

USSR/Medicine - Therapeutics (Contd)

May/June 48

diagnosis, in particular, of pneumonia and rheumatism
of heart. Criticizes impractical nature of papers
read at medical society session.

6/49T60

AI'PCV, N. A.

AI'Gov, N. A. "The nervous system in the pathogenesis of affections of the internal organs," Trudy Khovrin. obl. klinich, bol'nitsy, Khovrin (Moscow Oblast), 1949 p. 27-55

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

AL'DOV, N. A.

Al'bov, N. A. - "Results of the First Plenum of the Chief Thera-
peutists of the Republics of the USSR [Moscow, 22-24 October
1948_7," Vracheb. delo, 1949, No. 2, columns 175-82

SO: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 14, 1949).

AL'BOV, N. A., KANEVSKIY, G. L. i SPIVAK, P. YA.

20082 AL'BOV, N. A., KANEVSKIY, G. L. i SPIVAK, P. YA. Vsesoyuznaya gipestonicheskaya konperentsiya na plenumo gravnykh respublikanskikh terapevtov. /Moskva. Okt. 1948 g/ Vracheb. delo, 1949, No. 6, stb. 561-68, 3(obg.)

SO: LETOPIS ZHURNAL STATEY, Vol. 27, Moskva, 1949.

AL'BOV, N. A.

Al'Bov, N. A. "The organization of therapeutic aid in the USSR and the tasks of hospital-polyclinic unions for its improvement", Sov. vracheb. sbornik, Issue 13, 1949, p. 25-29.

SC: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

AL'BOV, N.A.

1726. Treatment of Tuberculous Peritonitis (Polyserositis) and Lymphadenitis by a Non-specific Action on the Neuro-receptor Apparatus of the Lungs. (Лечение туберкулезных перитонитов (полисерозитов) и лимфаденитов путем неспецифического воздействия на невронорецепторный аппарат легких) N. A. AL'BOV. Клиническая Медицина [Klin. Med., Mosk.] 28, No. 4, 22-30, April, 1950. 10 refs.

In 1938 Speransky and Ostry began a series of experiments on tuberculosis in rabbits. Intravenous emboli of wax and cocoa butter containing cultures of tubercle bacilli lodged in the lungs; after 1 to 3 months there was tuberculous infection throughout the body. In order to render the emboli radio-opaque bismuth carbonate was added to the vehicle for the bacilli. When bismuth carbonate was used, even microscopic lesions did not form, except near the pulmonary emboli where typical tubercles developed. If bismuth carbonate was administered intraperitoneally it had no effect on the course of the generalized disease caused by the infected emboli, although the intraperitoneal doses were much larger than those given effectively in the emboli. Intra-pleural injection of bismuth was also ineffective, although the generalized tuberculosis could be prevented in these experiments by subsequent "embolic" bismuth. The workers considered that the "embolic" bismuth must act through pulmonary chemoreceptors. "Numerous" experiments were performed.

The author began, in 1942, treatment of a series of clinical cases of tuberculosis by injecting bismuth emboli into the antecubital vein. A total of 0.4 to 0.5 g. of

1726 Cont.

1901

bismuth carbonate was given over about 6 weeks in 15 to 20 injections. Two cases of tuberculous polyserositis are described. A woman of 26 developed a pyovarium 4 months after treatment, but became clinically well within 6 months of laparotomy for the pyovarium. A man of 46 recovered from tuberculous polyserositis, and was "well" 1½ years after treatment. Summaries are given of 10 cases of cervical tuberculous lymphadenitis. In all these cases recovery began after treatment. Of 65 patients with tuberculous peritonitis, 52 recovered, 6 improved, 5 remained unchanged, and 2 died. The corresponding figures for 41 cases of tuberculous lymphadenitis are 30, 8, 3, and 0. Two patients with tuberculous meningitis and one with miliary tuberculosis all died.

[No details are given of concurrent conservative treatment. There is no control series. No other forms of embolus were tried. Soluble bismuth was not given except intraserosally in the rabbits.] *Jeffrey Boss*

Abstracts of World Medicine
Vol 8 1950

AL'BOV, N.A.

Prevention of influenza in pit workers. Fel'sher & akush. no.10:14-15
Oct 1953. (GIML 25:4)

1. Professor. 2. Moscow.

1. AL'BOV, N.A., Prof.
2. USSR (600)
4. Medicine - Study and Teaching
7. Training physicians skilled in therapy, Sov.zdrav. 12 no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

ALBOV, V.

"The training of specialists in internal diseases. Tr. from the Russian.
p. 253. (NEPHGOSZSZEKUGY, Vol. 24, No. 10, Sept. 1953, Budapest, Hungary)

SO: Monthly List of East European Accessions, II, Vol. 3, No. 4, April,
1954

AL'BOV, N.A., professor.

Forms and methods of specialization and additional training for rural and district physicians in province hospitals. Sov.med. 18 no.5: 32-36 My '54. (MIRA 7:5)

1. Zaveduyushchiy 2-y terapevticheskoy klinikoy Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta im. M.F.Vladimirskogo (direktor - kandidat meditsinskikh nauk P.M.Leonenko). (Medicine---Study and teaching) (Hospitals)

AL'BOV, N.A., professor

Basic organizational problems concerning the medical care of patients
in a hospital. Med.sestra no.5:15-19 My '55. (MLRA 8:6)

1. Glavnyy terapevt Moskovskoy oblasti.
(HOSPITAL ADMINISTRATION,
personnel organiz. in Russia)

AL'BOV, N.A., professor

Some general principles for the therapy of internal diseases. Fel'd.
i akush. no.10:3-8 O '55. (MLRA 8:12)

(THERAPEUTICS)

AL'BOV, N.A., professor

Tasks of chief province therapeutists. Sov. zdrav. 15 no.1:22-28
Ja-F '56. (MLRA 9:6)

1. Glavnyy terapevt Moskovskogo oblastnogo otdela zdravookhraneniya.
(GENERAL PRACTICE
tasks of GP heads in Russia)

EXCERPTA MEDICA Sec. 6 Vol. 11/7 July 57

ALBOV, N.A.

4463. ALBOFF N. A. *Pathogenetic treatment of bronchial asthma by influencing the neuroreceptor apparatus of the lungs SOVETSK. MED. 1956, 1 (3-9) (Russian text)

The principle of non-specific intravenous treatment of asthma with carbonic acid bismuth is to be found in the possibility of the immediate effect on the neuroreceptor apparatus of the lungs, and the inductive inhibition in the cerebral cortex. The organism develops marked resistance to pathogenic agents and allergens. 100 patients were successfully treated with this method. In 50%, chronic-infectious processes of the lungs were observed, which were treated either with PAS or with PAS combined with other antibiotics. The dosage was 10 to 20 ml. slightly heated twice per week (0.04 ml. in 20 ml. normal saline solution).

Frey - Berlin (XV, 6)

Iz Instituta normal'noy i patolo-
gicheskoy fiziologii, Akademii
meditsinskikh nauk SSSR.

ALBOV, N.A., professor; SERGEL', O.S., kandidat meditsinskikh nauk (Moskva)

Problem of subacute aleukemic basophil leukosis. Klin.med, 34 no.3:
88-90 Mr '56. (MLRA 10:1)

1. Iz 2-y terapevticheskoy kliniki (zav. - professor N.A.Al'bov)
Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo
instituta imeni M.V.Vladimirovskogo.

(LEUKEMIA, ALLEUKEMIC, case reports,
basophil (Rus))

AL'BOV, N.A., professor

Stomatological problems in the clinical aspects of internal diseases. Stomatologiya 35 no.4:11-15 J1-Ag '56 (MLRA 10:4)

1. Iz kafedry propedevtiki vnutrennikh bolezney Moskovskogo meditsinskogo stomatologicheskogo instituta (dir.-dotsent G.N. Beletskiy)

(VISCERA--DISEASES) (MOUTH--DISEASES)

AL'BOV, N.A.
AL'BOV, N.A., prof. (Moskva)

How to prevent diseases of the cardiovascular system. Med. sestra
16 no.12:6-10 D '57. (MIRA 11:1)
(CARDIOVASCULAR SYSTEM--DISEASES)

AL'BOV, N.A., prof.

Internal medicine and stomatology. Sov.med. 23 no.7:12-19
J1 '59. (MIRA 12:11)

1. Zav.kafedroy propedevtiki vnutrennikh bolezney Moskovskogo
meditsinskogo stomatologicheskogo instituta (dir. G.N.Beletskiy).
(MEDICINE)
(STOMATOLOGY)

AL'BOV, N. V.

Markov, D. V. and Al'bov, N. V., "Model of a Stationary Brune Circulation," Trudy GGO
(Proceedings of the GGO) No 31 -- Teoriticheskaya meteorologiya (Theoretical Meteorology),
8, 1940

SO: U-3039, 11 Mar 1953

AL'BOV, P.A.

SOLOV'YEV, L.P.; ~~AL'BOV, P.A.~~ VOLOSHANOVICH, N.F.

On hydraulic cleaning of castings. Lit.proizv. no.1:31-32
Ja '55. (MIRA 8:3)
(Foundry machinery and supplies)

AL'BOV, S.V.

Al'bov, S.V. "Explanation of the origin of the caving-in and settling of the surface according to the theory of mountain pressure (based on the case of the karst in the low-lying reaches of the left bank of the Ob' River)" in the collection: Karstovedeniye, Issue 4, Molotov, 1948, p. 23-36.

So: U-3042, 11 March 53, (Le.Lopis 'nukh Statey, No. 9, 1949)

AL'BOV, S. V.

"The Origin of Three Crimean Mountain Ranges," Dok. AN, 62, No. 4, 1948.

1. AL'BOV, S. V.
2. USSR (600)
4. Mineral Waters - Crimea
7. Narzan in the Crimea. Izv. Vses. geog. ob-va, 85 No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

AL'BOV, S.V.

Problem of Carbonic-Acid Waters of Crimea, S.V. Al'bov, DAN SSSR, vol 86, no.6, pp 1045-56, Feb 53.

Description of sources of these waters in Crimea. States that gases from the mountains are composed of 92.5% carbon dioxide. The presence of carbonic acid water poses the problem of the possible presence in Crimea of a young Tertiary-Quaternary vulcanism. Presented by D.S. Belyankin, Acad.

258T79

AL'BOV, S.V.

USSR/Geology - Mineral waters

Card 1/1 : Pub. 86 - 34/46

Authors : Al'bov, S. V.

Title : ~~Mineral waters in Crimea~~
Mineral waters in Crimea

Periodical : Priroda, 43/9, page 116, Sep 1954

Abstract : An account is given of the finding of mineral-water springs on the Kerch peninsula. These waters are alkaline and salty and contain up to 1180 mg/l free carbon-dioxide. Mineral waters were found at several other places by drilling.

Institution :

Submitted :

~~AL'BOV, S.V.~~

Boron in underground waters of the Crimea [with summary in English].
Géokhimiia no.1:80-83 '57. (MIRA 12:3)

1. Institute of Mineral Resources, Academy of Sciences, Ukr.
S.S.R., Simferopol.

(Kerch Peninsula--Water, Underground)

(Taman Peninsula--Water, Underground)

(Boron)

AL'BOV, S.V.

Karst in the Crimean steppes. Izv.Krym.otd.Geog.ob-va no.4:101-
102 '57. (MIRA 14:8)
(Crimea--Karst)

AL'BOV, S.V.

Oil-field waters in the Crimean steppes. Geol. zhur. 17 no.4:79-81
'57. (MIRA 11:4)

(Crimea--Oil field brines)

AL'BOV, S.V.

Underground waters of the Crimea. Izv. Krym. otd. Geog. ob-va
no.5:97-103 '58. (MIRA 14:9)
(Crimea--Water underground)

SOV-26-58-10-20/51

AUTHOR: Al'bov, S.V., Doctor of Geological and Mineralogical Sciences

TITLE: Pebble Shoals on the Bed of the Black Sea (Galechniki na dne Chernogo morya)

PERIODICAL: Priroda, 1958, Nr 10, pp 92-93 (USSR)

ABSTRACT: The author discusses the origin and history of the extensive pebble banks found on the bed of the Black Sea and gives the various theories for their formation. He concludes that the pebbles were deposited on the southern slopes of a vast Crimean mountain chain when this area was still dry land. The southern portion of the Crimean mountains must have then sunk below the sea some time in the Quaternary period. The author lists the contributions made to research into this problem by M.V. Muratov, G.A. Lychagin, A.D. Arkhangel'skiy, N.M. Strakhov and D.V. Nalivkin.

Card 1/2

Pebble Shoals on the Bed of the Black Sea

30V-26-58-10-20/51

There are 3 Soviet references.

ASSOCIATION: Institut mineral'nykh resursov AN USSR - Simferopol' (The Institute of Mineral Resources AS UkrSSR - Simferopol')

1. Black Sea--Geophysical factors
2. Geological time--Measurement

Card 2/2

AL'BOV, S.

AL'BOV, S., doktor geologo-mineralogicheskikh nauk

New mineral water in the Crimea. Vop.kur.fizioter. i lech.fiz.
kul't. 23 no.1:94 '58. (MIRA 11:3)
(CRIMEA--MINERAL WATERS)

AL'BOV, S.V., doktor geol.-mineral.nauk

Pebbles on the bottom of the Black Sea. Priroda 47 no.10:
92:93 0 '58. (MIRA 11:11)

1. Institut mineral'nykh resursov AN USSR (Simferopol').
(Black Sea--Geology)

ALIBOV, S. U.

24(8) PHASE I BOOK EXHIBITION SW/2768

vesoyuznyy soveshchaniye po geotermicheskim issledovaniyam. 1st, 1956.
Problemy geotermii i prakticheskogo ispol'zovaniya teplo zhalij brudy, t. 1.
(Geothermal Problems and the Practical Utilization of Terrestrial Heat)
Transactions of the 1st All-Union Conference on Geothermal Investigations,
Vol. 1) Moscow, Izd-vo AN SSSR, 1959. 254 p. Kravta slip inserted.
1,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye geologo-geograficheskikh nauk.

Ed. of Publishing House: I. V. Gerasimov, Tech. Ed.: I. K. Guseva; Editorial Board: V. I. Kuznetsov (Chairman), I. D. Dergunov (Deceased), V. V. Ivanov, P. A. Makarukho, and N. I. Kurbatov.

PURPOSE: This book is intended for geologists, hydrogeologists, and geophysicists in general and petroleum and coal geologists in particular.

CONTENTS: This volume, one of two published on the subject, is a collection of 22 articles based on reports presented at the First All-Union Conference on Geothermal Studies held in March, 1956. The Conference was sponsored and organized by the Laboratory of Volcanology, the Laboratory of Hydrogeological Problems in P. P. Savarskiy, the Institute of Geochemistry and Analytical Chemistry, the Geophysical Institute, and was attended by representatives of more than 60 research organizations. The material presented in this volume may be divided into three general categories: (1) presented general problems of the search for geothermal resources; (2) presented geothermal research; (3) regional geothermal problems. References accompany each article.

Yakovlev, V. I. Basic Types of Steam Hydrothermal Formations in Italy and New Zealand 37

Skellern, N. A. Problems in the Theory of Temperature Fields as Applied to Geothermal Methods of Exploration for Sub-surface Waters 109

Zakharovskiy, A. M. Problems of Geothermal Power 112

Kashchinsky, S. A. Some Standing Problems of Geothermal Research in the USSR 116

D'yakov, D. I. Historical Development and Contemporary State of Geothermal Research in the USSR 126

Dergunov, D. I. (Deceased) Geothermal Exploration Methods 130

Ordnikovich, A. M. Geothermal Study of Mineral Water Deposits 142

Reychik, A. Z. Characteristics of the Geothermal Gradient of Oil Reservoirs in the USSR and the Application of Thermal Studies to Salt Oil Production Problems 150

Polubinskiy, A. Ya. The Geothermal Regime of the Ciscaucasus and Adjacent Areas 171

Rabinets, A. Ya. Geothermal Conditions in the Mercurias and Moldavian SSR's 190

Kashkov, Zh. M. The State of and the Problems in the Study-of-the Geothermal Conditions of Deep Coal Fields in the Dniebas 208

Orda, V. Ya. Geothermal Regime of the Central Part of the Dniebas 226

Yakovlev, V. A. (Deceased) The Geothermics of the Dniebas 236

Pogomolov, G. V. Data on the Geothermal Conditions in the Belorussian SSR and Adjacent Areas 246

Alibov, S. U. New Data on the Geothermics of the Crimea 244

Chernovskiy, G. A. Results of Geothermal Studies in Siberia 246

AL'BOV, S.V.

Waters in oil fields of the Kerch Peninsula. Trudy Inst.min.
resur.AN URSSR no.1:51-59 '59. (MIRA 12:8)
(Kerch Peninsula--Oil field brines)

AL'BOV, S.V.

Neogene oil-field waters in the Black Sea Lowland. Geol. zhur.
19 no.4:95-96 '59. (MIRA 13:1)
(Black Sea Lowland--Oil field brines)

AL'BOV, S.V.; KOSTRIK, I.V.

Some new data on the mineral waters of the Crimea. Vop. kur.
fizioter. i lech. fiz. kul't. 25 no. 5:469-470 S-0 '60.
(MIRA 13:10)

(CRIMEA--MINERAL WATERS)

AL'BOV, S.V.

Microcomponents of Crimean underground waters. Gidrokhim. mat. 35:
76-81 '63. (MIRA 16:7)

1. Institut mineral'nykh resursov AN UkrSSR, Simferopol'.
(Crimea--Water, Underground--Composition)

AL'BOV, S.V.

Hydrology of the eastern part of the Ay-Petri mountain massif.
Geol. zhur. 23. no.4:62-67 '63 (MIRA 17:7)

1. Institut mineral'nykh resursov AN UkrSSR.

AL'BOV, S.V.

Tectonics of the region of the Northern Mountain Ridges
in the Crimea. Geofiz. i astron. no.8:54-55 '65.

(MIRA 19:1)

1. Institut mineral'nykh resursov Gosudarstvennogo geolo-
gicheskogo komiteta SSSR.

AL'BOVA, A.M.

From practice in plotting a landform map of an administrative region:
based on the example of Kasimov District, Ryazan Province. Vest.
Mosk. un. Ser. 5: Geog. 20 no.1:42-51 Ja-F '65. (MIRA 18:3)

1. Laboratoriya landshaftovedeniya Moskovskogo universiteta.

AL'BOVA, G. Ye.

MASTBAUM, M. I., AL'BOVA, G. Ye.

Diagnostic value of jejunal catheterization. *Sovet. med.*
17 no. 11: 14-17 Nov 1953. (GML 25:5)

1. Professor for Mastbaum. 2. Of the Institute of
Experimental and Clinical Medicine (Director -- A. Ya. Rezman),
Academy of Sciences Estonian SSR.

AL'BOVA, G. Ye.

SHVARTS, G.S.; ~~AL'BOVA, G. Ye.~~

Extensive fixed erythema occurring due to medication with sulfanilamides. Vest. ven. i derm. no.6:45 N-D '54. (MLRA 8:2)

1. Respublikanskaya bol'nitsa Estonskoy SSR, Tallinn.
(SULFANILAMIDES) (SKIN--DISEASES)

ALPOVA, R. YE.

PA 6/49752

USSR/Medicine - Parasites
Medicine - Fish

Jun 48

"New Type of Multigenetic Parasite From the Family Gyrodactyloides Bychowsky," R. Ye. Albova, Leningrad State U, 2 pp

"Dok Ak Nauk SSSR" Vol IX, No 9

Gyrodactyloides bychowskii nov. sp. was discovered in White Sea by author in 1947. Describes parasite in detail. Host is salmon *Salmo solar brevipes* Smitt. Sketch shows how parasite attaches itself to gills. Submitted 3 Apr 48.

6/49752

LOKSHINA, S.S.; AL'BOVA, Ye.A.

Studying the effect of different amounts of manganese on the viability of enteric bacteria; authors' abstract. Zhur.mikrobiol. epid. i immun. 28 no.7:148 J1 '57. (MIRA 10:10)

1. Iz Ukrainskogo instituta kommunal'noy gigiyeny.
(MANGANESE--PHYSIOLOGICAL EFFECT)
(INTESTINES--BACTERIOLOGY)

LOKSHINA, S.S.; AL'BOVA, Ye.A.

Studies on bacterial infestation of soil and drainage water from
sewage irrigation fields. Gig. i san. 24 no.5:76-77 My '59. (MIRA 12:7)

1. Iz Ukrainского instituta kommunal'noy gigiyeny.

(SEWAGE,

field irrigation, spreading of bact. (Rus))

(AGRICULTURE,

field irrigation with sewage, spreading of bact. (Rus))

SAVCHENKO, Panteleymon Spiridonovich, kand. khim. nauk; DYATLOVITSKAYA, Frida Grigor'yevna, kand. khim. nauk; YAROSHENKO, Vasiliy Andreyevich, kand. med. nauk; AL'BOVA, Yevgeniya Alekseyevna, kand. med. nauk; GABOVICH, R.D., red.; LEVCHUK, A.O., tekhn. red.

[Methods of chemical and microbiological analysis of water]
Metody khimicheskogo i mikrobiologicheskogo analiza vody. [By]
P.S.Savchenko i dr. Kiev, Gosmedizdat USSR, 1961. 197 p.
(WATER..ANALYSIS) (WATER..MICROBIOLOGY) (MIRA 15:9)

AL' BOVA YES

med ✓ The amounts of arginine, histidine, lysine, tyrosine, tryptophan, and cystine in the proteins of different kinds of meat and fish. A. I. Taranova, E. S. Al'bova, and I. S. Grovnikhina (Nutrition Inst., Acad. Med. Sci. U.S.S.R., Moscow). *Voprasy Pitaniya* 14, No. 6, 27-35 (1955). — The aut. tabulated for 24 kinds of meat from domestic birds and animals, 20 kinds of fish and fish products, and also seal, lobster, dolphin, and crab. The fish proteins contain slightly more lysine, tryptophan, and cystine, but less histidine than the meat proteins; the proteins of lobster and crab contain still more arginine and cystine than the fish proteins, while in terms of lysine they are equiv. to the proteins of meat.

B. Wierbicki

AL'BOVA, Ye.V., kand.med.nauk (Simferopol')

Effectiveness of vitamin B₁₂ in the treatment of various anemias
and diseases of the liver. Vrach. delo no.2:68-71 F '61.

(MIRA 14:3)

1. Kafedra fakul'tetskoy terapii (zav. - prof. S.P. Zakrividoroga)
i mikrobiologii (zav. - dotsent I.I.Rybas) Chernovitskogo meditsin-
skogo instituta.

(ANTIBIOTICS)

(LOCAL ANESTHESIA)

ALBRANU, Dumitru, ing.

New methods of geotechnical studies. Rev transport 10 no.10:475-
481 0 '63.

Albrecht, F. A stable contractible 2-dimensional polyhedron. *Bull. Acad. Polon. Sci. Cl. III.* 5 (1957), 1047-1049, LXXXVII. (Russian summary)
Using an example of K. Borsuk [*Comment. Math. Helv.* 8 (1935/6), 142-148], the author shows the existence of a stable [see preceding review for definition], contractible, 2-dimensional, finite polyhedron. —/6 E. Michael.

RB
11

2

Kilbrecht, F. Un théorème de comportement asymptotique des solutions des systèmes d'équations différentielles

I-FW

method same Bull 3 (1955) 43-44. This method extends a previous one of the same author and whose novelty consists in the fact that...

Z

Suppose that there exists a connected set Z such that $Z \cap S \neq \emptyset$, $Z \cap S' \neq \emptyset$, and Z is a retraction of S and Z is not a retraction of Z' . Then there exists a point $p \in Z$ such that $L(p) \subset Z$.

L. Cesari

SMW //

ALBRECHT, F. B. / x

Halanay, A. Points singuliers et solutions périodiques.
Acad. R. P. Romine. Bul. Şti. Sect. Şti. Mat. Fiz. 7 (1955), 319-324. (Romanian. Russian and French summaries)

The author considers the real system

(1) $dx/dt = Q(x, y) + \mu X(x, y, t),$
 $dy/dt = P(x, y) + \mu Y(x, y, t),$

where P, Q are homogeneous polynomials of the same degree and X, Y are analytic functions of x, y, t and periodic in t . Denote by $f(k)$ the function

$$f(k) = P(1, k)/Q(1, k)$$

and suppose that: (1) the equation $f(k) = k$ has at least two real roots; (2) $f'(k) < 0$. Then for all μ sufficiently small in absolute value, system (1) has periodic solutions. Wazewski's topological theory is used [Ann. Soc. Polon. Math. 20 (1947), 279-313; MR 10, 122; and a theorem of Massera [Duke Math. J. 17 (1950), 457-475; MR 12, 705].

L. Cesari (Lafayette, Ind.).

Barbălat, I. Remarques sur la note "Points singuliers et solutions périodiques". Acad. R. P. Romine. Bul. Şti. Sect. Şti. Mat. Fiz. 7 (1955), 325-328. (Romanian.

HAIANAY R

(in French and French summaries)

The present paper extends the result of the paper reviewed above concerning systems of the form

$$(1) \quad \begin{aligned} dx/dt &= Q(x, y) + \mu X(x, y, t), \\ dy/dt &= P(x, y) + \mu Y(x, y, t), \end{aligned}$$

where now Q, P are supposed to be real functions of x and y , holomorphic in a neighborhood of the origin $x = y = 0$. In the present paper results and notations of S. Lefschetz [Contributions to the theory of nonlinear oscillations, v. II, Princeton, 1952, pp. 61-73; MR 14, 557] are used. If the analytic function defined by $R(x, y) = x(Q - yP) = 0$ has only single branches through the origin which have no contacts there and divides a neighborhood of the origin in at least four sectors all of the type I in the sense of S. Lefschetz (loc. cit.), then system (1) has periodic solutions for μ sufficiently small in absolute value.

L. Cesari (Lafayette, Ind.).

Allbrecht, Felix. Points singuliers et solutions périodiques. *Com. Acad. R. P. Rouine* 5 (1955), 1035-1040. (Romanian. Russian and French summaries)

This paper concerns a more straightforward application

3/3

... of periodic solutions of the system

$$(1) \quad \begin{cases} dx/dt = Q(x, y) + \mu X(x, y, t), \\ dy/dt = P(x, y) + \mu Y(x, y, t), \end{cases}$$

already discussed in the two papers reviewed above. Here X, Y are functions of class C^1 of x, y, t , periodic in t with period ω . Also, Q and P are supposed to be real analytic functions of x and y in a neighborhood Ω of the origin $x = y = 0$ which is an isolated singularity. If all real branches through the origin defined by $R(x, y) = xQ + yP = 0$ are single, and the set Ω has at least four points of "external sliding" in the sense of Wazewski, and the points p of internal sliding satisfy the condition

$$(2) \quad T^{\varepsilon}(p) \cap \text{Ext}(\Omega) \neq \emptyset,$$

then system (1) has at least one periodic solution for every μ in absolute value sufficiently small. In (2) \emptyset is the null set, $\varepsilon = \pm 1$, and $T^{\varepsilon}(p_0)$ denotes the projection on the xy -plane of the half-trajectory $x = x(t), y = y(t), t \geq t_0$ [$t \leq t_0$] through p_0 at $t = t_0$. Finally, in (2) we have $\varepsilon = +1$, or $\varepsilon = -1$, according as $dr/dt > 0$, or $< 0, r = (x^2 + y^2)^{1/2}$, this sign being constant in each sector around the origin defined in Ω by the real branches above. L. Cesari.

5/3

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ALBRECHT, F.

Bulletin - Vol. 2, no. 7, 1954.

Remarks on T. Wazewski's theorem relative to asymptotic expansion of the integrals of differential equations. p. 315.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

HLBRECHT, F.

Albrecht, F. L'équilibre élastique des cristaux du système cubique. Com. Acad. R. P. Roumâne I. 407-408 (1951). (Romanian - Russian and French versions.)
B For cubic crystals, the author gives the displacement equations and stress equations corresponding to the Beltrami-Mitchell equations for isotropic materials, assuming linear elasticity. He writes down some solutions for uniformly varying stress.
J. L. Ericksen (Washington, D.C.)

1 - F/W

Handwritten initials:
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S/044/62/000/008/012/073
C111/C333

AUTHORS: Albrecht, F., Barbalet, I.

TITLE: Turbulent systems generated by non-linear dynamic systems

PERIODICAL: Referativnyy zhurnal, Matematika, no. 8, 1962, 40,
abstract 8B180. ("Comun. Acad. RPR," 1961, 11, no. 9, 1051-1057)

TEXT: Considered are 2-dimensional autonomous dynamic turbulent systems E(Rzh. Mat., 1953, 1185). They are described by two systems of ordinary differential equations

$$(I) \begin{cases} \dot{x} = X_1(x,y) \\ \dot{y} = Y_1(x,y) \end{cases} \quad (II) \begin{cases} \dot{x} = X_2(x,y) \\ \dot{y} = Y_2(x,y) \end{cases} \quad (1)$$

the right sides of which are defined in the half planes

$$\begin{aligned} Ax + By + C_1 &\geq 0 \text{ for system I} \\ Ax + By + C_2 &\leq 0 \text{ for system II} \end{aligned} \quad (2)$$

and satisfy there the necessary existence and uniqueness conditions.

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Turbulent systems generated by . . . S/044/62/000/008/012/073
C111/C333

(III) The case where the path begins in the second half plane of (2) is analogous to case (II).

The authors generalize several previously known methods for determining stable limiting cycles for the equations of Lienard, Van der Pol, especially for the case of the turbulent system E described above.

Herein they use mainly theorems due to Bendixon which were carried over to the considered case by Albrecht (Rzh. Mat., 1961, 1B141).

We point out that the case where the systems I and II of (1) are Lienard equations and $A = C_1 = C_2 = 0$ was considered earlier by

G. P. Miroshnichenko, who also used Bendixon's results (cf., *Automatika i Telemekhanika*, 1960, 21, no. 3, 293-300).

[Abstracter's note: Complete translation.]

Card 3/3

16,8000 (1031, 1121, 1344)

S/103/61/022/007/002/008
D252/D302

AUTHOR: Al'brekht, F. (Bucharest)

TITLE: On a problem in the theory of optimum processes in linear systems

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 7, 1961, 838-844

TEXT: Certain optimization problems can be considered as finally solved if the variable point leaving by "inertia" the end point of its optimum trajectory and continuing its motion along a new optimum trajectory, does not leave the neighborhood of the set F , i.e. the optimization is in a certain sense "stable". F is a closed convex set belonging to the n -dimensional space R^n . If the set F reduces to a point, such stability is ensured by the conditions necessary for synthesis as cited by R.V. Gamkrelidze (Ref. 2: Teoriya optimal'nykh po bystrodeystviyu protsessov v lineynykh sistemakh, Izv. AN SSSR, seriya matem., v. 22, no. 4, 1958) and L.S. Pontryagin (Ref. 3: Optimal'nye protsesst regulirovaniya. Usp. matem. nauk,

Card 1/4

23956

On a problem...

S/103/61/022/007/002/008
D252/D302

v. 14, no. 1, 1959). In the present article the most complete results were obtained for the case $n = 2$, F - a straight line. Eq. 1

$$\frac{dx}{dt} = Ax + bu \quad (1)$$

is considered and defined in R^n . b is a fixed vector of R^n , and A is a linear transformation of R^n (independent of time). The class of permissible functions from which the controller function $u(t)$ is chosen, are the piecewise-linear functions with $|u(t)| \leq 1$. By definition, the controller $u(t)$, ($0 \leq t \leq T$), transfers the point $x_0 \in R^n - F$ into F , if the corresponding solution $x(t; x_0, u(t))$ of Eq. (1) satisfies the condition $x(0; x_0, u(t)) = x_0, x(T; x_0, u(t)) \in F$. The controller $u(t)$ which transfers x_0 into F , is optimal, if for any allowed controller $u^*(t)$ ($0 \leq t \leq T^*$) which transfers x_0 into F , the condition $T^* - T \geq 0$ is satisfied. Proceeding from 3 theorems taken from references, it is possible to synthesize the optimum controller for Eq. (1) if the set F is an $(n - 1)$ -dimensional hyperplane (or a smooth convex hypersurface). According to Ref. 3 (Op. cit), this synthesis problem consists in finding the function $v(x) = u_x(0)$, where $u_x(t)$ is a controller which transfers x into

Card 2/4

On a problem...

3/103/61/022/007/002/008
D252/D302

F ; $v(x)$ enters the equation $\frac{dx}{dt} = Ax + bv(x)$ (2)

for the optimum trajectories of Eq. (1). These are constructed by dividing the half space P_1 (which resulted from the division of R^n by F) into disjoint sets on each of which the function $v(x)$ has constant value ($v(x) = \pm 1$ for $x \in R_i$), (R_i is a set of half-trajectories). The function $v(x)$ ($v(x) \in \{1\}$) defined on $R^n - C$, where C is a closed convex set of P_1 , is called synthesizing function for Eq. (1) with respect to F , if it satisfies the following conditions: a) Each trajectory of Eq. (2) reaches C ; the first point of intersection between trajectory and C is called terminus of the trajectory. b) for each $x_0 \in R^n - C$, the function $u_{x_0}(t) = v(x(t; x_0))$ (where $x(t; x_0)$ is the solution of Eq. (2) with initial condition $x(0; x_0) = x_0$, considered only to its terminus $p(x_0)$), is an allowed controller for Eq. (1). This synthesizing function can be always determined by means of the optimum controller $u_x(t)$ which transfers the points $x \in P^n - C$ into C , by putting $v(x) = u_x(0)$. The synthesizing function is called stable if for any $x \in R^n - C$ and any $\epsilon > 0$, an $\delta > 0$ can be found so that all the trajectories of Eq. (2) which originate in the δ -neighborhood of $p(x)$, remain in the

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S/103/61/022/007/002/008
D252/D302

On a problem...

δ -neighborhood of the set F . In general the synthesizing function $v_F(x)$ is not stable, but if F is a hyperplane through the origin and if the real parts of all the eigenvalues of the matrix A are negative, $v_0(x)$ is stable. (Refs. 2, 3, Op.cit). Further, the author constructs the optimum, stable, synthesizing function. The case is considered: $n = 2$, F - a straight line through the origin; although part of the reasoning is also applicable to any n , F being an $(n-1)$ -dimensional hyperplane. The synthesizing function obtained is optimal in the sense that no other trajectory of Eq. (2) which has another stable synthesizing function is traversed in a shorter time. Finally, the following theorem is obtained: An optimum, stable, synthesizing function with respect to F always exists. It equals $v_F(x)$ if the vectors a and aA are linearly independent, $v_0(x)$ if $aA = (Ax_1 + b \text{ sign } a \cdot b) < 0$, and $v_S(x)$ otherwise (a is a vector normal to F , oriented in the opposite direction of x_0 ; S is the set of points of F which are simultaneously the termini of two optimum trajectories). The author expresses his thanks to V.M. Popov and A. Khalanay. There are 3 figures and 6 Soviet-bloc references.

SUBMITTED: December 12, 1960

Card 4/4

ALBRECHT, H., dr inż.; LANGE, F.H., prof. dr inż. (Niemiecka Republika
Demokratyczna)

Methods of telecommunication and control techniques as applied
to improved dynamic characteristics of measuring converters.
Bud okretowe Warszawa 8 no.10:356-359 0 '63.

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POLAND

RYMKIEWICZ, D. and ALBRECHT, H., of the Serum and Vaccine Research Office,
State Hygiene Institute (Zakład Badania Surowic i Szczepionek PZH), Warsaw.

"An Attempt to Isolate Beta Antigen (DN-ase) from Cl. septicum Culture
Filtrate"

Warsaw, Medycyna Doswiadczalna i Mikrobiologia, Vol 23, No 3, 1966, pp
247-254.

Abstract: Three strains of Cl. septicum cultured in cellophane bags were
used in experiments designed to determine the conditions of producing
cultures with high beta antigen activity and low alpha and gamma antigen
levels. The desired result was obtained in Vf medium without peptone at pH
= 7.5 in the presence of 0.1% glucose after incubation at 30°C. Specific
antitoxin was added to the bag. The final preparation did not contain
alpha antigen (no lethal, hemolytic and necrotic factor activity).
Contains 3 tables and 6 references (4 Polish and 2 Western).

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MACHAC, M.; ALBRECHT, I.

The changes of arterial blood pressure in the course of relaxation-activation autoregulation intervention. *Activ. nerv. sup.* (Praha) 7 no.2:190 '65

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